



# Rio Algom Limited



## **Annual Meeting**

The Corporation will hold an Annual and General Meeting of Shareholders on Wednesday, April 25, 1979 at 10:00 a.m. (Toronto time), in the Territories Room, Royal York Hotel, 100 Front Street West, Toronto, Ontario, Canada.

## **Cover**

Reproduced approximately actual size is a piece of uranium ore from Rio Algom's New Quirke mine at Elliot Lake, Ontario where the Corporation is carrying out major expansion programs in various mines and processing plants.



# Rio Algom Limited

120 Adelaide Street West, Toronto, Canada M5H 1W5

## Highlights of 1978 Consolidated Operations

(in thousands except  
where noted by asterisk)

	1978	1977
Sales .....	\$576,055	\$486,587
Net earnings .....	\$ 61,817	\$ 42,815
Per share of common stock .....	\$ 4.53	\$ 3.12
Dividends paid on common stock .....	\$ 17,429	\$ 14,589
Per share of common stock .....	\$ 1.29	\$ 1.08
Working capital, year end .....	\$232,822	\$227,859
Ratio of current assets to current liabilities .....	3.1 to 1	3.3 to 1
Common shareholders' equity .....	\$382,189	\$338,190
Total common shares outstanding at December 31 .....	13,511	13,510
Equity per share of common stock outstanding .....	\$ 28.29	\$ 25.03
Production (000's)		
Uranium oxide (Pounds) .....	6,028	5,468
Copper in concentrate (Pounds) .....	135,422	141,111
Steel (Tons) .....	208	195
Number of employees at December 31 .....	6,658	5,922

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# Directors' Report To the Shareholders:

In 1978 the Corporation's sales exceeded one-half billion dollars for the first time and earnings and dividend payments to shareholders were the highest in its history. Despite a large capital expenditure program in recent years a strong financial position has been maintained.

## Financial Position

Consolidated net earnings increased to \$61.8 million (\$4.53 per common share) in 1978 compared to \$42.8 million (\$3.12 per common share) last year. Dividends of \$17.4 million were paid on common shares in 1978 (\$1.29 per share) compared to \$14.6 million (\$1.08 per share) in 1977. The increase in dividend payments reflects a change from \$0.54 per common share to \$0.75 per common share in the case of the second of the two semi-annual dividends that are normally paid. As previously reported the dates for semi-annual dividend payments on common shares have been advanced from June and December to May and November. This has been done to avoid year-end postal congestion and to permit earlier mailing to shareholders of reports that they require for income tax purposes.

Consolidated revenue was \$576.1 million, an increase of 18% over the 1977 total of \$486.6 million. Earnings in 1978 before deductions for income and mining taxes and the interests of minority shareholders in the net earnings of Lornex Mining Corporation Ltd. (68.1% owned by Rio Algom) were \$105.1 million as compared to \$83.1 million in 1977. Pre-tax earnings were higher from steel manufacturing and metal distribution operations and from Lornex and slightly lower from uranium operations.

Income and mining taxes of \$38.7 million were only slightly higher than last year despite the increase in pre-tax earnings in 1978. The decrease in the effective tax rate is mainly attributable to reduced mining taxes on lower uranium taxable earnings and increased investment tax credits associated with major capital expenditures for expansion of uranium operations.

Capital expenditures of \$86.3 million were somewhat lower than the expenditures of \$95.4 million in 1977. Of the 1978 total, \$72.8 million was expended on the Elliot Lake uranium expansion program. It is expected that 1979 capital expenditures will be somewhat higher than the 1978 level.

The total capital cost of the Elliot Lake program has been budgeted at \$280 million. Expenditures to the end of 1978 have been \$178.3 million of which \$68.9 million relates to the Quirke expansion program, \$71.8 million to the Panel mine and mill and \$37.6 million to housing. It is currently forecast that the final total cost will be below budget.

Capital expenditures over the five year period 1974 through 1978 have totalled \$286.4 million. The Corporation's consolidated net long term debt nevertheless increased by only \$20.5 million over this period in contrast to an increase of \$159.3 million in shareholders' equity and of \$74.4 million in cash and short term deposits. It is expected that the capital programs to which the Corporation is currently committed can be completed without recourse to outside financing except for normal mortgage financing of new housing at mine sites.

## Uranium Operations

Revenue from 1978 uranium production was \$153.1 million compared to \$132 million in 1977. The overall average price of \$25.39 per pound in 1978 was slightly higher than in the previous year largely because of the decline in value of the Canadian dollar; as reported last year the 1977 uranium revenues also included the effect of price renegotiations applicable in part to 1976. Increased operating costs include the higher depreciation and amortization charges relating to the expanded Quirke operation which came on stream in April, 1978. Operating earnings were \$57 million in 1978 compared to \$58.1 million in 1977.

Production of uranium oxide in 1978 was 6 million pounds compared to 5.5 million in the previous year; the increase reflects completion of the Quirke expansion program. The average grade of uranium ore mined in 1978 was lower than in 1977.

## Copper Operations

Rio Algom's interest in Lornex's net earnings was \$9.8 million (68.1%) compared to \$5.2 million (67.2%) for the year 1977. Lornex paid its first dividend of \$0.20 per common share in 1978.

The average daily milling rate at the Lornex copper-molybdenum mine was slightly higher than in 1977. Copper production decreased and molybdenum production increased because of normal variations in the grade of ore mined. Net revenue was higher because of higher average copper and molybdenum prices and net earnings improved despite an increase in operating costs.



## Steel Operations

Sales of specialty and stainless steel manufactured by the Corporation and of metal purchased from others for resale were \$334.9 million in 1978; this represents an increase of 20% over last year. Operating earnings increased from \$17.7 million to \$32.8 million reflecting improved performance by both Atlas Steels manufacturing and Atlas Alloys metal service centre groups.

The tonnages of steel produced by Atlas Steels' Welland and Tracy plants increased and average selling prices were moderately higher. Although operating costs also increased during 1978 earnings improved over the previous year. Earnings from the operation of the Welland plant were adversely affected in 1977 and the earlier part of 1978 by delays in attaining production and cost objectives for the new melt shop; these were achieved in the latter part of 1978. Significant improvements in yields and general operating efficiency were accomplished at the Tracy plant as a result of the productivity improvement program that is being carried out.

Operating costs also increased at the Atlas Alloys metal service centres but this group was able to maintain its profit margins and achieve significant increases in sales and earnings despite continuing strong competition.

## Exploration

Exploration expenditures of \$6.0 million were lower than in the previous year mainly because in 1978 expenditure on the Sage Creek coking coal prospect was reduced, a less costly type of program was carried out at the Gayna River zinc-lead property and expenditures on the Lac Roberge asbestos prospect were minimal. The Review of Operations section of this Report presents a review of exploration activities carried out in 1978.

During 1978 a comprehensive assessment of the exploration function was carried out. The conclusion was reached that although Rio Algom's uranium and copper properties are efficient world-scale mines with reserves that will support operations into the next century, increasingly extensive programs should be undertaken in order to find and develop new mining properties. The scale of exploration activity will thus be increased substantially commencing in 1979.

## Further Information

Further information regarding the operations and activities of the Corporation is provided in the Review of Operations, Financial and Supplementary Information sections of this Annual Report. For reference purposes maps of Elliot Lake showing the location of the mines and of new housing areas that are being developed contiguous to the present town are shown on page 8.

## Uranium Contracts

At the end of 1978 approximately 75 million pounds of uranium oxide remained to be delivered from Elliot Lake against current contractual commitments and an additional 3 million pounds is to be delivered from the Lisbon mine in Utah by a United States subsidiary of one of the Corporation's subsidiaries. Virtually all of the Elliot Lake deliveries will be made against long term contracts under which the principal outstanding deliveries will be made through 1990 and completed in 1992. About 15 million pounds of the deliveries from Elliot Lake will be made under older contracts negotiated in 1966 which are essentially of the base price plus escalation type; in some cases the price has been renegotiated to recognize changes in economic conditions. The other currently contracted deliveries from Elliot Lake, totalling some 60 million pounds, will be made in fulfillment of contracts signed in 1974 which provide for prices that are to be determined on an annual basis at the higher of a minimum price and a settlement price that takes into account free world market conditions for uranium at the time of delivery. Deliveries under this type of contract are scheduled to commence in 1979; certain legal matters relating to some of such deliveries are described in note 7(e) to the consolidated financial statements which appears on page 27.



## Elliot Lake Expansion Program

The expansion program currently in progress at Elliot Lake was initiated in May, 1975 to provide capacity to produce the uranium oxide committed for future delivery under contracts currently held. As previously reported, the first phase of the program was to increase the ore processing capacity of the Quirke mill from 4,500 to 7,000 tons of ore per day and to provide the additional ore from expansion of the Quirke mine; the second phase of the program is to develop the closed down Panel mine and mill to an ore processing rate of 3,300 tons per day. When this program is completed the total daily ore processing rate at Elliot Lake will have been increased from 4,500 tons to 10,300 tons per day, but, because lower grade ore will be mined, the increase in production of uranium oxide will be less than proportionate. The onsite work involves development of additional mining capacity, expansion and construction of uranium recovery facilities and construction of effective tailings disposal systems. In addition, a large scale program is being carried out at Elliot Lake to provide housing and amenities for the much larger number of people that will be required to carry on the expanded Elliot Lake operation over the long term.

Expansion of the Quirke facilities was completed ahead of schedule in mid-year. Development of Panel is proceeding on a schedule that provides for commencement of operations during the latter part of 1979. The housing program is falling seriously behind because of delays in obtaining approval for the development of additional building sites from the numerous regulatory bodies that have become involved; this is making it difficult to increase employment at the rate necessary to achieve development and production objectives.

The current expansion program will enable the Corporation to make all of the deliveries committed under present contracts through to their completion in 1992. In the latter part of this period some additional production from these facilities will be available for sale to others. It is also expected that, in the longer term, ore mined from the closed down Spanish American property will be processed at either the Quirke or Panel plants.

The current program will complete the development of the Corporation's uranium holdings on the North Limb, except for the Spanish American property. The location of properties together with those on the South Limb is shown on the map on page 8.

The South Limb properties comprise the Milliken, Lacnor and Nordic mines that have been closed for some years. These contain substantial uranium deposits considered to be commercially recoverable under currently forecast economic conditions. Studies to determine the most effective means of developing these properties for production are at present in a preliminary stage. No decision has been taken regarding the timing or the method of development but it is currently believed that this can be done most effectively as a single unified operation at Milliken.

## Other matters

The legal actions and proceedings to which the Corporation and/or its wholly-owned United States subsidiary are parties are described in note 7(e) to the consolidated financial statements which appears on page 27.

The Corporation's operations are no longer subject to price, profit, employee compensation or dividend controls under the Federal Government Anti-Inflation program which expired on December 31, 1978.

## Outlook

Rio Algom's uranium deposits at Elliot Lake together with those of its associated company, Preston Mines Limited, are relatively low grade but nevertheless rank among the world's largest known uranium deposits. The Corporation's uranium sales contracts assure continuity of uranium operations on the North Limb in the Elliot Lake area until completion of current delivery obligations in 1992. The expansion required to make the deliveries is scheduled for completion late in 1979. In addition the major uranium deposits contained in properties on the South Limb are not committed.

The 68.1% owned Lornex copper-molybdenum mine in British Columbia which Rio Algom manages under contract is one of only a few such operations that achieved respectable net earnings in 1978. Lornex is a world-scale mine with reserves sufficient to maintain operations at current operating rates into the next century.

Atlas Steels, the only integrated stainless and specialty steel manufacturer in Canada and a reasonably sized organization of its type by North



American standards, has been in continuous operation for 50 years. The mills at Welland and Tracy, although handicapped by the volume limitations of the relatively small Canadian market, are modern and efficient and can compete effectively with most other manufacturers of these products.

Atlas Alloys is a large, efficient and successful metals service centre system, with facilities across Canada and in the United States, Mexico, England and Australia. It markets a full range of products from the two Atlas Steels mills and substantial quantities of metal products purchased from other producers.

In brief, Rio Algom is a mature corporation with substantial financial and personnel resources carrying on large scale and reasonably diversified operations. It is one of a relatively small number of integrated organizations with headquarters in Canada that have the technological and other resources required to compete successfully in international markets.

Some of the Corporation's specific achievements in the five year period 1974 through 1978 are:

- Rio Algom's activities provided approximately 28,000 man years of direct employment, largely to individuals resident in Canada. Total payroll payments were \$460 million. In addition payroll related benefits amounted to \$82 million. A multiplier effect can reasonably be expected to amount to several times the total of these payments.
- Total sales were \$2.2 billion of which \$898.4 million was in foreign currency, mainly United States dollars.
- Capital expenditures were \$286.4 million. This has more than doubled Rio Algom's investment in productive employment-creating capital facilities.

These are some of the impressive contributions that Rio Algom has made to Canada's national economy over the past five years alone in the course of its normal pursuit of business opportunities. They are recorded as examples of the benefits that flow from a successful and responsibly conducted private sector enterprise.

## Directors

Mr. L. A. Lapointe, Q.C., a director of Rio Algom since March, 1963, died on May 23, 1978. Mr. Lapointe had, from April, 1961, been a director of Atlas Steels Limited whose business was acquired by Rio Algom on December 31, 1962. During his lengthy association with the Corporation Mr. Lapointe made a most distinguished contribution. His advice and counsel will be missed.

Mr. Alistair Frame, an Executive Director of The Rio Tinto-Zinc Corporation Limited (RTZ), was appointed Chief Executive and a Deputy Chairman of that corporation on September 20, 1978. Mr. P. H. Dean, who is also an Executive Director of RTZ, will not present himself for re-election as a director of Rio Algom at the Annual and General Meeting on April 25, 1979 and it is intended that he will be replaced by Mr. Frame.

It is also intended that Mr. Robert S. Hurlbut, Chairman and President of General Foods, Limited, will be elected to the Board at this Meeting.

## Appreciation

Each of the Corporation's activities was operated efficiently and profitably in 1978 and improvements were achieved and programs carried out that will provide a firm base for the future. The Directors wish to express their appreciation to each of the individuals whose efforts have made this possible.

On behalf of the Board

R. D. Armstrong,  
Chairman and Chief  
Executive Officer

Toronto, Canada  
March 2, 1979

G. R. Albino,  
President and Chief  
Operating Officer



# Review of Operations

## MINING

Revenue from mine production was \$241.2 million compared to \$207.4 million in the previous year. Operating profit from mining operations before exploration, corporate expenses and interest and before income and mining taxes and minority interests was \$87.1 million compared to \$77.4 million in 1977.

*Expansion of the Quirke complex at Elliot Lake was completed in 1978 ahead of schedule. At right is Quirke mine. Below is the enlarged Quirke mill.*





## URANIUM

Revenue from uranium mining operations conducted in the Elliot Lake area in Ontario, Canada by the Corporation and near Moab, Utah in the United States of America by Rio Algom Corporation, a subsidiary of one of the Corporation's subsidiaries, was \$153.1 million in 1978 compared to \$132.0 million in the previous year. Operating profit before income and mining taxes was \$57.0 million in 1978 compared to \$58.1 million in 1977.

Comparative milling, metallurgical, production and shipping data from uranium operations for the years 1978 and 1977 are as follows:

	Elliot Lake		Lisbon	
	1978	1977	1978	1977
Tons of ore processed (thousands)	2,166	1,676	267	272
Average tons processed per day	6,223	4,774	741	749
Average recovery per ton (lbs.)	2.3	2.6	4.0	4.2
Average processing recovery	93.7%	94.1%	94.6%	94.4%
Pounds of uranium oxide produced (thousands)	4,952	4,326	1,076	1,142
Pounds of uranium oxide delivered (thousands)	5,420	5,295	1,000	1,100



Stanleigh uranium mine (foreground) and the Milliken mine at Elliot Lake. Stanleigh, owned by Preston Mines Limited, will be developed by Rio Algom to enable Preston to make deliveries under its contract with Ontario Hydro. Milliken, also shut down, is available for development sometime in the future.

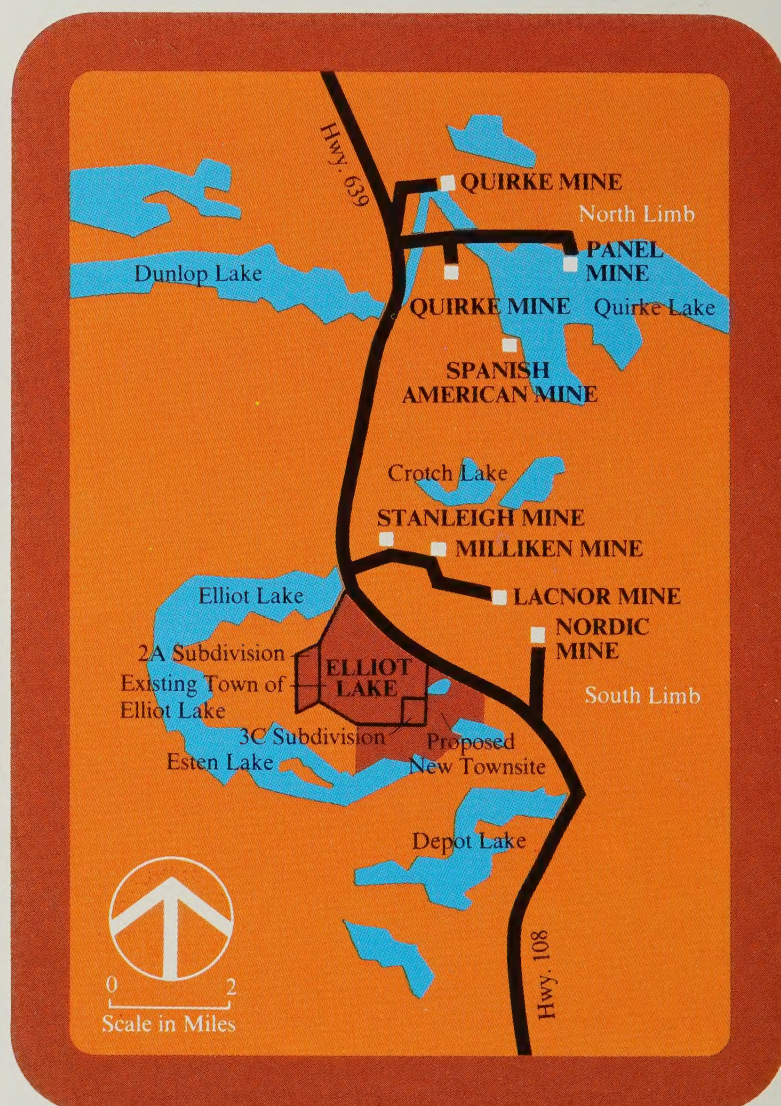
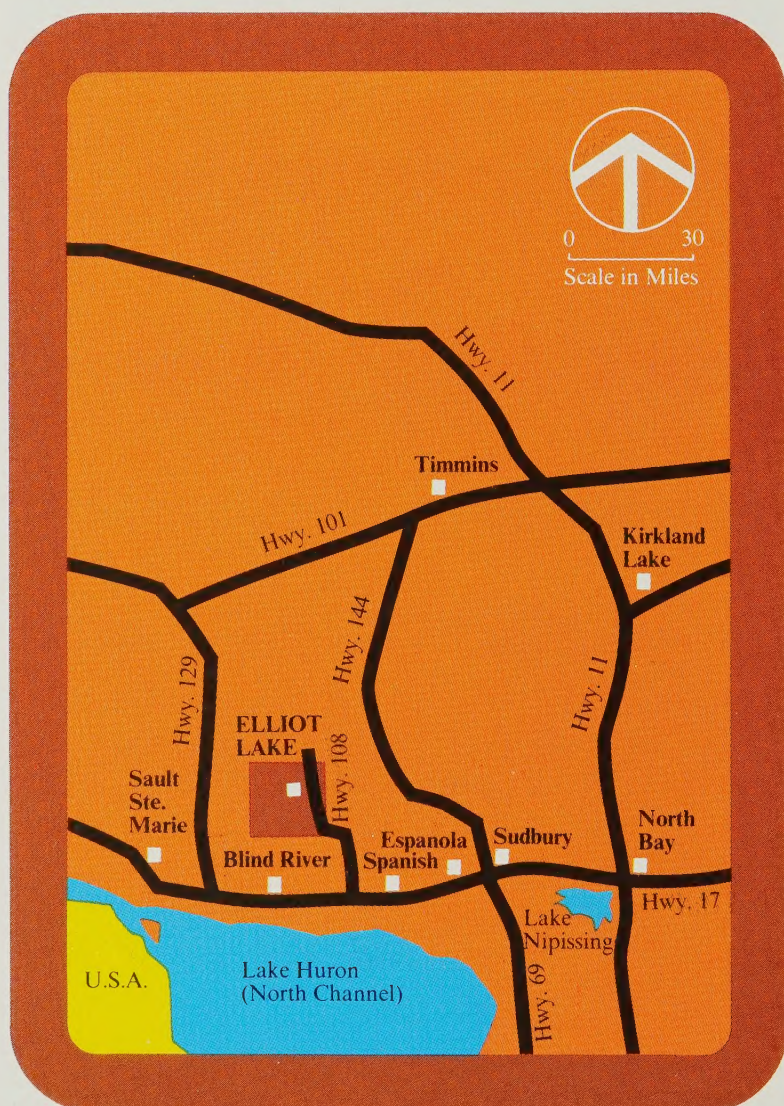


## ELLIOT LAKE

Except for minor quantities of preproduction ore from the Panel mine all ore production at Elliot Lake in 1978 was from the Quirke orebodies and all processing was carried out in the Quirke mill. The increase in tons of ore processed is attributable to the expansion of the Quirke operations which was essentially completed in April, 1978. Production of uranium oxide was higher although average grade was lower. The decline in uranium grade per ton of ore processed is consistent with the mining plan for this operation; it is expected that there will be further declines in the grade of ore recovered in the normal course of mining operations at Quirke.

Operating costs were higher because of continuing increases in the costs of energy, operating supplies, wages and employee benefits and the additional depreciation and amortization charges related to the capital cost of the expanded Quirke operation and increased production therefrom.

The first phase of the Elliot Lake expansion program, initiated in 1975, was to increase the mining and ore processing capacity of the Quirke complex from 4,500 to 7,000 tons per day. This was completed in 1978 ahead of schedule and below budget. The design average rate of 7,000 tons per day was reached in March; in the last quarter of the year production was in excess of the new rated capacity.







*Panel mine, under development to begin production in late 1979, has been shut down since 1961.*



*Mammoth fans being prepared for installation at Panel where they will form part of mine's ventilation system.*



The second phase of the Elliot Lake expansion program, announced in October, 1976, was to develop the closed down Panel mine and mill to a processing rate of 3,300 tons of ore per day. It is expected this project will be completed on time in late 1979 and within budgeted capital cost despite construction labor strikes in the summer of 1978 and delays in obtaining some government environmental approvals. Major capital cost increases for waste treatment facilities caused by more stringent environmental requirements have been largely offset by savings in the cost of underground development made possible by more extensive use of trackless mining equipment than had been planned.

In 1975 a housing program was initiated to provide essential accommodation for about 1,200 additional people who will be employed at the Quirke and Panel operations. To the end of 1978 construction of a total of 1,126 housing units had been approved, of which 804 units had been completed, including 285 units completed in 1978; an additional 322 units are expected to be completed in 1979. The housing units are of high quality and include single and semi-detached dwellings, townhouses and apartments.

Delays in obtaining government approvals for new housing sites, caused largely by Environmental Board hearings over the past two years, are making it difficult to construct the housing units that are required to accommodate the people who will be employed to carry out development programs and subsequent operations at Rio Algom's projects in this area. Unless the government's building site approval process is accelerated to permit an orderly increase in employment at Elliot Lake the major program to be carried out by Rio Algom to reactivate Preston's Stanleigh Mine to provide uranium to Ontario Hydro will also be impeded.



*The result of a successful revegetation program that was undertaken at the shut-down Nordic mine tailings area.*





*Impermeable vinyl liners are being installed at all Panel mine tailings dams to prevent seepage from containment areas.*

*Membranes are seamed (left) and a sand blanket and layer of coarse rock are spread over the liners to prevent them from shifting.*



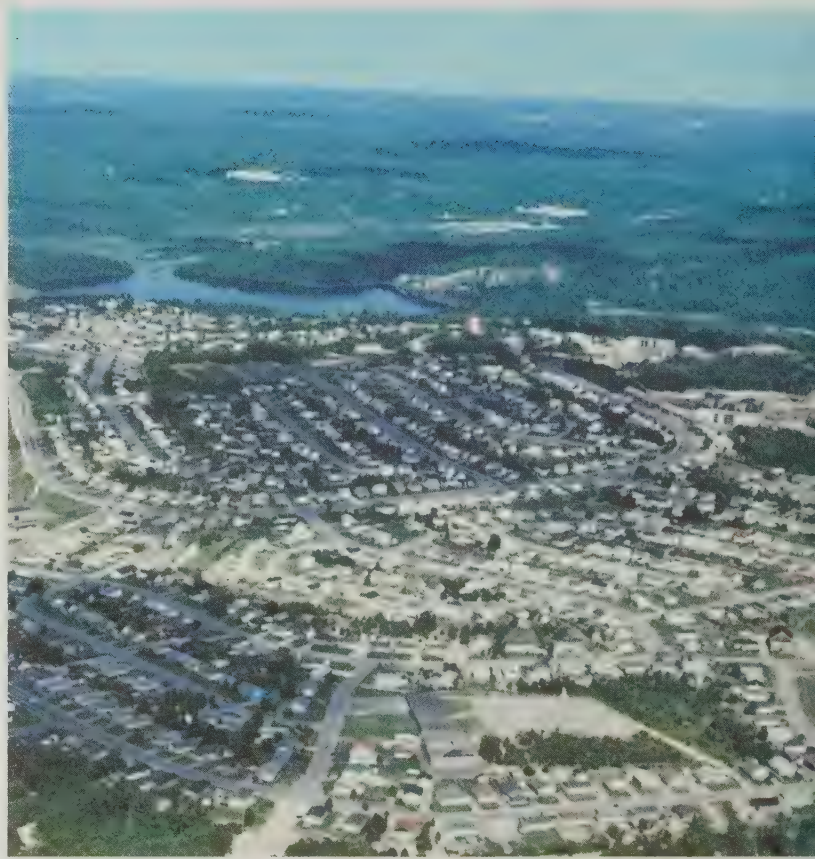
To alleviate the shortage of skilled people required at Elliot Lake for ongoing operations, together with the anticipated needs for the planned expansions, an extensive training program was established in 1973. This program has been successful and it has been expanded in scope each year. It has enabled trainees to become skilled miners and qualified tradesmen and has helped meet the Corporation's needs for people to carry out its programs.

The Ontario Environmental Assessment Board was authorized and directed in September, 1976 to hold hearings regarding the effect on the environment of the planned expansion of uranium mining and milling operations in the Elliot Lake area. Initial hearings were held in April, 1977 and March, 1978. A detailed environmental study was prepared in relation to the expanded operations of the Corporation and submitted to the Board on April 25, 1978. Further hearings commenced in August, 1978 and are expected to be completed in March, 1979; a report by the Board is expected by mid-1979.

## **LISBON MINE**

The total tonnage of ore processed and the average tons processed per day decreased slightly compared with the previous year but exceeded the design capacity of the facilities. The average recovered grade per ton declined slightly in accordance with the planned sequence of mining.

Operating costs increased during the year but as a result of continuing strict cost controls the increase was held to less than the escalation in the cost of energy, operating materials and supplies. From mid-year the operation has been subject to a new United States Federal Mine Safety and Health Act which has resulted in more frequent inspections and a significant increase in training requirements.



*As in any other modern community, Elliot Lake has ample recreation areas with facilities for young and old.*



*The Elliot Lake beach is obviously a big attraction during the warm summer days.*



*The annual Uranium Festival is a time for Elliot Lakers to eat, relax, play and compete.*



*Large crowd gathers to watch drilling competition, one of many held during the Uranium Festival.*



## COPPER

The results of operations of the copper-molybdenum mine in British Columbia and the financial position of Lornex Mining Corporation Ltd., which was 68.1% owned by Rio Algom at year end, are included with those of Rio Algom on a fully consolidated basis. Rio Algom's interest in Lornex's net earnings in 1978 was \$9.8 million compared to \$5.2 million (67.2%) for the year 1977.

The comparative operating results of Lornex as an entity are summarized as follows:

	1978	1977
	(In thousands)	
Net revenue from production	\$88,096	\$75,449
Operating expenses	49,028	47,352
Amortization and depreciation	9,264	9,072
	<u>58,292</u>	<u>56,424</u>
Earnings before interest and taxes	29,804	19,025
Interest costs (net of investment and other income)	3,940	3,644
Earnings before taxes	25,864	15,381
Income and mineral resource taxes	11,510	7,600
Net earnings for year	<u>\$14,354</u>	<u>\$ 7,781</u>
Minority shareholders' interests in above earnings	<u>\$ 4,579</u>	<u>\$ 2,552</u>

The increase in net revenue to \$88.1 million and in net earnings to \$14.4 million from \$75.4 million and \$7.8 million respectively in 1977 was largely due to higher prices for copper and molybdenum; most of the increase in the copper price was attributable to a decline in the value of Canadian currency. The gross revenue price per payable pound of copper averaged Canadian 73 cents as compared to Canadian 60 cents in the previous year. The effect of the higher price for copper was modified somewhat by slightly lower copper production and higher smelting and refining charges.

As a result of a continuing cost control program, total mine operating costs were maintained in 1978 at about the same level as in 1977; the average cost per ton of ore milled was reduced to \$2.30 per ton from \$2.33 per ton in 1977. The total quantity of ore and waste material handled in mining operations was about 54 million tons in both years but more ore was available for processing in 1978 because the ratio of waste material to ore mined was 2.05 to 1 in 1978 compared to 2.17 to 1 in the previous year.

Comparative milling, metallurgical, production and shipping data of the Lornex operation in 1978 and 1977 are as follows:

	1978	1977
Tons of ore milled (thousands)	17,557	17,065
Average tons milled per operating day	48,100	46,753
Average mill head grade		
— copper	0.446%	0.481%
— molybdenum	0.016%	0.015%
Average mill recovery		
— copper	89.5%	88.9%
— molybdenum	71.6%	72.2%
Pounds of payable metal in concentrate produced (thousands)		
— copper	135,422	141,111
— molybdenum	3,985	3,795
Pounds of payable metal in concentrate delivered (thousands)		
— copper	134,621	153,792
— molybdenum	4,110	4,071

The comparative financial position of Lornex as an entity are summarized as follows:

	1978	1977
	(In thousands)	
Cash and short term deposits	\$ 7,936	\$11,216
Receivables and inventories	36,010	37,432
Current assets	43,946	48,648
Current liabilities	16,740	22,439
Working capital	27,206	26,209
Fixed and other assets (net)	142,325	147,162
Total assets less current liabilities	169,531	173,371
Deduct:		
Long term debt	25,448	48,851
Deferred income and mineral resource taxes	42,141	35,326
	<u>67,589</u>	<u>84,177</u>
Net assets	<u>\$101,942</u>	<u>\$89,194</u>
Minority shareholders' interests in net assets	<u>\$ 32,519</u>	<u>\$29,256</u>





*Lornex's new tailings dam at the stage shown above has cost approximately \$15 million to the end of 1978.*

*A 20-ton bite of ore is taken by a giant shovel at the Lornex copper mine in the Highland Valley of British Columbia.*

Net capital expenditures were \$4.4 million in 1978 and it is expected that such expenditures will be somewhat higher in 1979. Capital expenditures in 1978 related mainly to furtherance of work on projects begun in prior years; no major new capital projects were initiated during the year.

By the end of 1978 the new bank loans arranged in 1976 in the amount of US \$70 million in the course of refinancing Lornex's capital debt had been reduced to US \$25 million.

A copy of the Lornex Annual Report for 1978, including the complete financial statements and notes thereto, will be provided upon request.





*Exploration teams were busy in 1978 working in diverse conditions across Canada and the United States.*

## EXPLORATION

Exploration expenditures by Rio Algom and its subsidiaries, including expenditures on the Sage Creek coking coal and the Lac Roberge asbestos properties, were \$6 million compared with \$6.4 million in 1977. In addition to aggressive exploration programs carried out in Canada and the United States by the Corporation and its subsidiaries, independent exploration groups were engaged to conduct programs in both countries. The Corporation was increasingly responsive to property submissions related to other countries.

Further drilling on a copper property in the Chibougamau area of Quebec delineated one million tons of ore grading 2.5% copper over an average 8.5 foot thickness. The mineralization occurs in a flatly-dipping quartz vein zone and is almost all less than 300 feet below the surface. Further drilling of a volcanogenic zinc-copper deposit in the Chibougamau area which is held by a joint venture, in which Rio Algom's interest is 33⅓%, failed to enlarge the previously indicated 747,000 tons grading 6.91% zinc and 0.55% copper with minor gold and silver values. Both deposits are of economic interest because of their proximity to available milling capacity in the established Chibougamau mining camp.

Three gold deposits have been disclosed by drilling in the Cape Ray property in southwestern Newfoundland. The deposits occur within a one-mile long section of a shear zone subsidiary to the major Cape Ray fault, a 40-mile length of which is contained in the property. The mineralization consists of fine-grained free gold and base metal sulphides in steeply-dipping quartz veins hosted mainly by chloritic schist. Each of the deposits has been drilled only to shallow depths, i.e. to 500 feet, 300 feet and 200 feet respectively and each is still open at depth. Calculated undiluted tonnages and grades for each of the deposits to those respective depths are 278,000 tons grading 0.29 oz gold and 0.71 oz silver per ton, 151,000 tons grading 0.35 oz gold and 1.40 oz silver per ton and 111,000 tons grading 0.43 oz gold and 0.57 oz silver per ton. Each of the deposits has accompanying minor copper, lead and zinc values. Geological mapping, geochemical sampling and geophysical surveying carried out along the 40-mile length of the Cape Ray fault within the property indicate a good potential for additional deposits. A major drilling program will be carried out in 1979 to test this area. The Corporation's interest in the property is approximately 89%, subject to a production royalty.







*Helicopter and float plane bring in supplies to an exploration camp in the far north of Canada.*

In the Northwest Territories a comprehensive geotechnical program involving geophysics and lithogeochemistry was done on the 75 square mile Mississippi Valley-type Gayna River zinc-lead property, located 110 miles west of Norman Wells, primarily to identify targets indicative of high grade mineralization. The work disclosed a number of attractive locales which will be tested by a major drilling program in 1979.

Further work in 1979 is warranted for base metal prospects in Newfoundland, Quebec, Ontario and British Columbia, a tungsten prospect in the Yukon, and a fluorite prospect in British Columbia.

The Sage Creek coking coal property, in which the Corporation has a 60% interest, has been assessed in detail. Studies indicate that when the coal market improves the property could be brought into production at a rate of 1.7 million tons of clean coal per year.

## EMPLOYEE RELATIONS

At December 31, 1978 there were 3,062 employees engaged in mining operations of whom 2,249 were engaged in production, 761 engaged in executive, technical, administrative or clerical functions and 52 were engaged in exploration activities. During the year there was an increase of 458 in the number of people employed at the Elliot Lake operations.

In February, 1979 the renegotiation of the collective agreements with the production and maintenance employees and the operating engineers in the Elliot Lake area, which expired on October 15, 1978, was completed. These agreements are in effect until September 1, 1981. The renegotiation of a collective agreement with the office and technical employees is in progress.

At the Lisbon mine renegotiation of the collective agreement with the production and maintenance employees which expired on February 28, 1979 was completed and is in effect until February 28, 1982.

In July, 1978 a collective agreement was renegotiated with production, maintenance, office and technical employees at the Lornex mine. This agreement is in effect until June 30, 1980.

Labor relations are considered to be good with no unusual difficulties during the year and there were no work stoppages.



## STEEL

Total sales, including metal products purchased from others by the Atlas Alloys metal service centre distribution group for resale, amounted to \$334.9 million in 1978 compared to \$279.1 million in the previous year. Operating profits from these operations before corporate expenses and interest (net) and before income taxes were \$32.8 million in 1978 compared to \$17.7 million in 1977.



*Some 17,000 guests helped Atlas Steels mark its 50th anniversary in two-day open house at the Welland, Ont. and Tracy, Que. plants. Here some of the visitors watch melt operation in Welland.*

## ATLAS STEELS

### Marketing and Distribution

Sales in Canada were higher in 1978. The decline in the value of Canadian currency encouraged an increase in exports by Canada's secondary manufacturers resulting in increased demand for low and high alloy bar products. The strong North American production rate of automobiles and trucks continued and sales of low alloy bar and stainless flat rolled products to transportation related end-users continued at relatively high levels.

Imports of some grades of stainless steel sheet from Japan and West Germany, and stainless steel plate from Japan and South Africa decreased sharply in 1978 as a result of a favorable decision of the Canadian Anti-Dumping Tribunal in January, 1978. However, these import reductions were generally offset by increased imports from the United Kingdom, Sweden and other countries to the extent that in 1978 total imports of these products were higher than those of the previous year.

Export markets, except for the United States, were depressed during the first part of the year but recovered during the second half. Sales volume to these markets was approximately at the same level as the previous year.

Increased sales into the United States market in 1978 were made possible by the expanded capacity of the new melt shop at the Welland plant. A separate sales organization was established in March, 1978 to provide improved service to mill product accounts in that market. Although sales of products under quota remained at or close to permissible levels, sales of products not covered by quotas increased. The exception was mining steels which reflected a decline similar to that experienced in Canada as a result of generally depressed conditions in base metals mining.

The forward outlook for specialty steel sales by Atlas Steels is difficult to predict. A climate of protectionism continues in most major markets. Quotas and trigger prices are expected to remain in effect in the U.S. market as are "minimum import prices" in Europe under the Davignon Plan. The Canadian government, in 1978, established an offset surveillance program on steel imports which it is expected will continue. The governments of most steel producing nations of the world are currently meeting under the sponsorship of the Organization for Economic Co-operation and Development in an attempt to resolve steel trade issues, but no early resolution is expected. In the shorter term, a weakened Canadian dollar has provided a measure of stimulation to both Canadian and export sales.



## Manufacturing

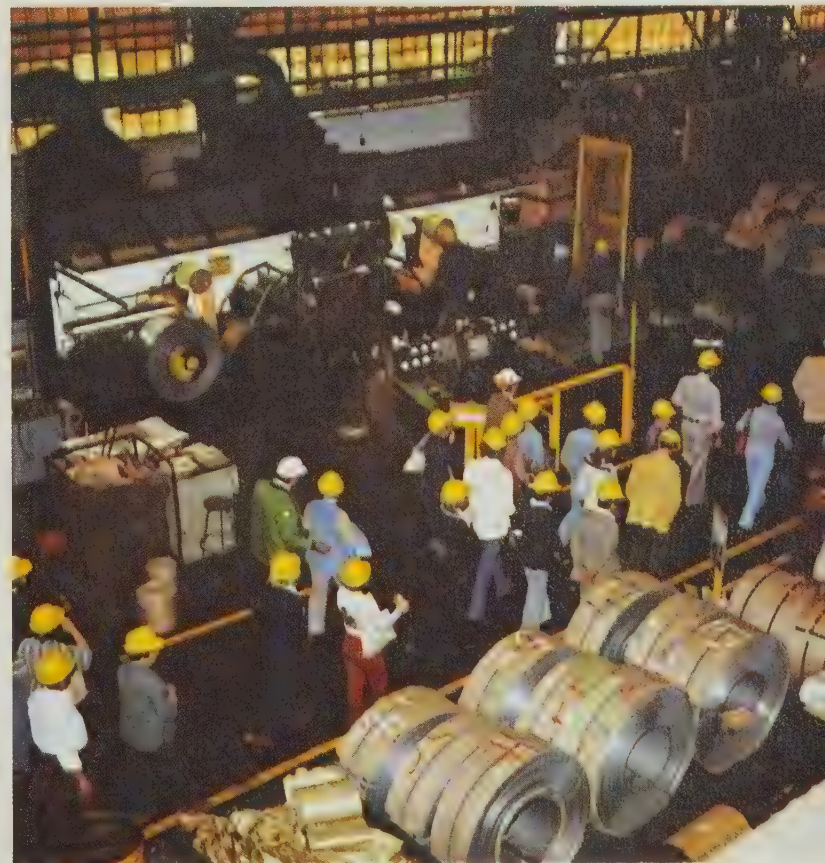
Both the Welland, Ontario and Tracy, Quebec plants entered the year with relatively low order backlogs. However, this position improved steadily to the extent that a near capacity level of operations was attained at mid-year at the Welland plant and was maintained during the second half of 1978.

The problems experienced in 1977 and the early part of 1978 in the start-up of the new melt shop at the Welland plant were largely overcome in 1978. The improved operating performance of the new melt shop was a major contributor to the increased earnings attained by the Welland plant in 1978.

At the Tracy plant shipments also increased from the previous year and significant improvements in yields and general operating efficiency were accomplished. As a result 1978 earnings exceeded the 1977 level.

Cost increases continued to occur in 1978 but on the average at a more moderate level. Energy costs have grown significantly over the past several years and special emphasis is being placed on energy conservation programs.

Capital spending in 1978 was significantly lower following the completion in 1977 of the new melt shop at the Welland plant. Capital spending will commence on the Welland north plant water pollution control system in 1979 and will continue until 1981.



*Above, visitors stroll by stainless steel coils while at left guests are briefed on Tracy plant operations.*





## ATLAS ALLOYS

In 1978 total sales of the Atlas Alloys metal service centre distribution group, including steel purchased from the Atlas Steels operations for resale, increased to record levels. Operating costs continued to rise but profit margins were maintained; earnings were also at record levels with gains achieved in both domestic and foreign operations.

The Canadian operation attained solid increases in sales and earnings at all ten service centre locations. Sales of products related to the transportation, fishing and forestry industries were particularly strong. However, declines in the value of Canadian currency, high interest rates and general business uncertainty tended to hamper major capital investments and reduced the sale of products to this market. Order levels remained strong during the fourth quarter and the year end back order position was favorable. In British Columbia, a warehouse at Prince George became fully operational and contracts have been let for an addition to the Vancouver service centre. Work was commenced on expanding the Montreal, Quebec service centre and plans have been completed for the establishment of a warehouse in Calgary, Alberta.

Increased sales and earnings were also achieved at the three United States service centre locations. A new facility is planned for the Chicago area which will provide increased capacity at this location.

Substantial revenue and earnings increases were achieved by the Australian operation, attributed in part to expansion of the facilities in Melbourne, Sydney and Brisbane. Production from the wire drawing facility at Melbourne continued at a high level and this operation also benefitted from currency exchange factors which deterred imports.

Sales volume of the Mexican operation substantially exceeded that of prior years. This reflected the strengthening business activities in Mexico related to development of its oil industry. During the year additional space was acquired which doubled the size of existing facilities and plans were developed to provide additional services and products.

Disappointing results in the United Kingdom resulted in consolidations being made in both products and services during the year. The branch at Brierly Hill was closed and efforts are now being focussed mainly on products and services related to the petrochemical markets. These activities are being serviced from facilities at Leeds and at Luton.



## EMPLOYEE RELATIONS

At December 31, 1978, there were 3,440 employees engaged in steel operations, of whom 2,134 were engaged in production, 817 in sales and marketing, and 489 in executive, administrative and clerical functions. During 1978, there were no work stoppages and, in general, employee relations continued to be good.

At the Welland plant the collective agreement, which expired on February 16, 1979, with production and maintenance employees is being renegotiated. (Subsequently completed and in effect until February 16, 1982.) A collective agreement with office and technical employees is in effect until August 31, 1979.

A collective agreement with production and maintenance employees at the Tracy plant expired on November 30, 1978; negotiation of a new collective agreement with a new union is in progress. A collective agreement with office and technical employees, which expired on January 31, 1979, is also being renegotiated.



The principal accounting policies followed by Rio Algom Limited and its subsidiaries are summarized hereunder to facilitate a comprehensive review of the financial statements contained in this report.

## BASIS OF CONSOLIDATION

The consolidated financial statements include the accounts of all significant subsidiary corporations, including those incorporated in the United States of America whose assets may be affected by the injunction described in note 7(e).

The accounts in foreign currencies are stated in Canadian dollars on the following basis:

Current assets and current liabilities at year-end exchange rates; all other assets and any related depreciation and long-term liabilities at rates in effect at time of transactions; and revenues and expenses (other than depreciation) at average rates for the year.

## VALUATION OF INVENTORIES AND CONCENTRATES AWAITING SHIPMENT

Inventories of steel, other metals, raw materials and supplies are valued at the lower of cost and market. Cost is determined generally at average or standard costs which approximate actual. Market for steel and other metals is net realizable value and for raw materials and supplies is replacement cost. Intercompany profits have been excluded from these inventories.

Concentrates awaiting shipment are valued at estimated realizable metal prices.

## DEPRECIATION AND AMORTIZATION

The following accounting policies are being followed in connection with the depreciation charges of the Corporation:

### (i) Mining fixed assets:

Depreciation is being provided on fixed assets on the basis of the shorter of physical life or economic life, as estimated for the individual mining units, the economic life to be adjusted from time to time as conditions warrant.

### (ii) Steel fixed assets:

Fixed assets are being depreciated on the straight line method based on engineering estimates of the lives of the assets at the following rates:

Buildings	4% per annum
Plant and equipment	6 $\frac{2}{3}$ % per annum

Mining properties and preproduction expenditures are being amortized on the same basis as depreciation is provided on mining fixed assets.

Excess of acquisition cost over adjusted book value of Atlas Steels assets is being amortized on a straight line basis over the period ending in 1982.

Debenture discount and financing expenses are being amortized on the debentures outstanding method over the life of the Sinking Fund Debentures Series B of the Corporation, which mature on July 15, 1995.

## CAPITALIZATION OF INTEREST

The Corporation follows the policy of capitalizing net interest costs during construction or development only on those projects for which funds have been borrowed; this would normally apply only to such major new projects from beginning of construction or development up to the commencement of commercial operations. In these cases interest earned on borrowed funds during the development and construction period is applied against the interest expense to reduce the amount of interest costs capitalized. Such net interest costs are capitalized because it is considered that they would not have been incurred if the project had not been undertaken and therefore are properly part of the capital cost of the total project.

## DEVELOPMENT PROJECTS AND EXPLORATION

Development projects are carried forward as assets while the projects are considered to be of value to the Corporation. All exploration expenses have been written off.

## INCOME AND MINING TAXES

The Corporation provides for deferred income and mining taxes on all significant timing differences which represent the tax effects of revenue and expense items reported for tax purposes in periods different than for accounting purposes. Investment tax credits claimed for federal income tax purposes are treated as a reduction of the current year's income tax expense. Such reductions amounted to \$6.3 million in 1978 and \$1.3 million in 1977.



## Consolidated Statement of Financial Position

**DECEMBER 31, 1978**

(Thousands of dollars)

CURRENT ASSETS:	1978	1977
Cash and short term deposits .....	\$ 94,496	\$ 110,936
Receivables and prepaid expenses (note 5) .....	86,471	75,232
Inventories and concentrates awaiting shipment (notes 2 and 5) .....	164,592	142,009
Total .....	<u>345,559</u>	<u>328,177</u>
Less:		
CURRENT LIABILITIES:		
Bank loans and overdrafts .....	11,948	8,946
Accounts payable and accrued liabilities .....	80,945	70,442
Income and mining taxes .....	19,674	13,250
Long term debt due within one year (note 5) .....	170	7,680
Total .....	<u>112,737</u>	<u>100,318</u>
WORKING CAPITAL .....	232,822	227,859
Plant and equipment, less depreciation (note 3) .....	248,972	193,821
Construction in progress, at cost .....	78,146	97,552
Mining properties and preproduction expenditures, less amortization (note 4) .....	62,152	42,849
Excess of acquisition cost over adjusted book value of Atlas Steels assets, less amortization ....	4,182	5,229
Debenture discount and financing expenses, less amortization .....	838	913
Investment in and advances to affiliated company, at cost (note 7) .....	16,378	14,104
TOTAL ASSETS LESS CURRENT LIABILITIES .....	<u>643,490</u>	<u>582,327</u>
Deduct:		
Long term debt (note 5) .....	114,676	121,993
Deferred income and mining taxes .....	104,604	82,544
Minority shareholders' interests in subsidiary company .....	32,519	29,256
	<u>251,799</u>	<u>233,793</u>
EXCESS OF ASSETS OVER LIABILITIES .....	<u>\$ 391,691</u>	<u>\$ 348,534</u>
OWNERSHIP EVIDENCED BY:		
Capital stock (note 6) .....	\$ 108,706	\$ 109,506
Contributed surplus .....	20,236	20,085
Retained earnings .....	262,749	218,943
Total .....	<u>\$ 391,691</u>	<u>\$ 348,534</u>

Approved on behalf of the Board:

G. C. GRAY, Director

R. D. ARMSTRONG, Director



# Consolidated Statement of Earnings

## YEAR ENDED DECEMBER 31, 1978

(Thousands of dollars)

REVENUE:	1978	1977
Revenue from mine production and sales of steel and other products .....	<u>\$ 576,055</u>	<u>\$ 486,587</u>
EXPENSES:		
Cost of mine production and steel sales .....	385,158	332,843
Selling, general and administration .....	45,290	39,397
Interest (net) (note 11) .....	2,224	(708)
Depreciation and amortization (note 12) .....	32,328	25,602
Exploration .....	5,951	6,391
	<u>470,951</u>	<u>403,525</u>
Earnings before taxes and minority interests .....	<u>105,104</u>	<u>83,062</u>
INCOME AND MINING TAXES:		
Current .....	17,613	11,630
Deferred .....	21,095	26,065
	<u>38,708</u>	<u>37,695</u>
Earnings before adjustment for minority interests in subsidiary company .....	66,396	45,367
Minority interests in net earnings of subsidiary .....	4,579	2,552
NET EARNINGS FOR THE YEAR .....	<u>\$ 61,817</u>	<u>\$ 42,815</u>
EARNINGS PER COMMON SHARE .....	<u>\$ 4.53</u>	<u>\$ 3.12</u>

# Consolidated Statement of Retained Earnings

## YEAR ENDED DECEMBER 31, 1978

(Thousands of dollars)

	1978	1977
BALANCE, beginning of year .....	<u>\$ 218,943</u>	<u>\$ 191,336</u>
Add:		
Net earnings for the year .....	61,817	42,815
	<u>280,760</u>	<u>234,151</u>
Deduct:		
Dividends on preference shares .....	582	619
Dividends on common shares at the rate of \$1.29 per share (\$1.08 in 1977) .....	17,429	14,589
	<u>18,011</u>	<u>15,208</u>
BALANCE, end of year .....	<u>\$ 262,749</u>	<u>\$ 218,943</u>



# Consolidated Statement of Contributed Surplus

## YEAR ENDED DECEMBER 31, 1978

(Thousands of dollars)

	1978	1977
BALANCE, beginning of year .....	\$ 20,085	\$ 19,776
Profit on purchase of preference shares for cancellation .....	151	309
BALANCE, end of year .....	<u>\$ 20,236</u>	<u>\$ 20,085</u>

# Consolidated Statement of Changes in Financial Position

## YEAR ENDED DECEMBER 31, 1978

(Thousands of dollars)

<b>SOURCE OF FUNDS:</b>	<b>1978</b>	<b>1977</b>
Earnings before adjustment for minority interests in subsidiary company .....	\$ 66,396	\$ 45,367
Add items included in earnings not involving current outlay of funds:		
Depreciation, amortization and other charges (net) .....	32,430	25,790
Deferred income and mining taxes .....	21,095	26,065
Funds provided by operations .....	119,921	97,222
Housing loans and mortgages (net) .....	16,932	4,269
Prepaid royalties recovered .....	965	—
Issue of common shares under stock option plan .....	41	75
	<u>137,859</u>	<u>101,566</u>
<b>DISPOSITION OF FUNDS:</b>		
Expenditures (net) for plant and equipment, construction in progress, mining properties and preproduction .....	86,329	95,392
Investment in and advances to affiliated company .....	2,274	6,031
Dividends on common shares .....	17,429	14,589
Dividends on preference shares .....	582	619
Purchase of minority shareholders' interests in subsidiary company .....	816	660
Payment of Lornex dividend to minority shareholders .....	527	—
Purchase of preference shares for cancellation .....	690	896
Recoverable royalties .....	—	559
Reduction of long term debt:		
Rio Algom Limited debentures .....	872	2,626
Bank loans of subsidiaries .....	23,377	13,637
	<u>132,896</u>	<u>135,009</u>
INCREASE (DECREASE) IN WORKING CAPITAL .....	4,963	(33,443)
Working Capital, beginning of year .....	227,859	261,302
Working Capital, end of year .....	<u>\$ 232,822</u>	<u>\$ 227,859</u>



# Notes to Consolidated Financial Statements

DECEMBER 31, 1978

## 1. ACCOUNTING POLICIES

The information on page 21 presents a summary of certain accounting policies and is an integral part of these financial statements.

## 2. INVENTORIES AND CONCENTRATES AWAITING SHIPMENT

	1978	1977
Mining operations —		
Mine supplies .....	\$ 22,429,165	\$ 17,581,223
Concentrates awaiting shipment .....	43,228,200	35,276,226
	<u>65,657,365</u>	<u>52,857,449</u>
Steel operations —		
Steel, other metals, raw materials and supplies .....	98,934,787	89,151,717
	<u>\$164,592,152</u>	<u>\$142,009,166</u>

## 3. PLANT AND EQUIPMENT

Buildings, at cost .....	\$176,774,959	\$129,733,919
Machinery and equipment, at cost .....	295,891,238	260,873,405
	<u>472,666,197</u>	<u>390,607,324</u>
Less accumulated depreciation .....	225,491,383	198,554,509
	<u>247,174,814</u>	<u>192,052,815</u>
Land, at cost .....	1,796,951	1,768,085
	<u>\$248,971,765</u>	<u>\$193,820,900</u>

Plant and equipment includes \$56,690,052 in respect of assets of mines presently idle which have been fully depreciated.

## 4. MINING PROPERTIES AND PREPRODUCTION EXPENDITURES

	1978	1977
Mining properties, at cost .....	\$ 9,296,692	\$ 9,296,692
Less accumulated amortization .....	7,730,604	7,454,601
	<u>1,566,088</u>	<u>1,842,091</u>
Preproduction expenditures, at cost .....	148,397,069	125,111,783
Less accumulated amortization .....	87,810,741	84,104,611
	<u>60,586,328</u>	<u>41,007,172</u>
	<u>\$ 62,152,416</u>	<u>\$ 42,849,263</u>



5. LONG TERM DEBT	1978	1977
Rio Algom Limited Sinking Fund Debentures (a)		
— 6¾% Series A maturing on April 1, 1983 .....	\$ 11,355,500	\$ 12,226,500
— 11½% Series B maturing on July 15, 1995 .....	50,000,000	50,000,000
Lornex Mining Corporation Ltd.		
— Bank loans due as stated hereunder (b) .....	24,350,982	54,546,200
Less portion included in current liabilities .....	—	* 6,818,275
Long term portion (1978 — U.S. \$25,000,000; 1977 — U.S. \$49,000,000) .....	24,350,982	47,727,925
Housing loans and mortgages payable (c) .....	29,140,244	12,088,243
Less portion included in current liabilities .....	* 170,000	* 50,000
	28,970,244	12,038,243
Total long term debt .....	\$114,676,726	\$121,992,668
*Total long term debt due within one year .....	\$ 170,000	\$ 6,868,275
Add foreign exchange differential .....	—	811,725
Total as shown on statement of financial position .....	\$ 170,000	\$ 7,680,000

- (a) The Corporation is required to make sinking fund payments for the retirement of the Sinking Fund Debentures in principal amounts as follows:

Series A — \$3,000,000 on October 1, 1979 to 1982 inclusive; and  
Series B — \$2,500,000 on July 15, 1981 to 1994 inclusive.

During the year \$871,000 principal amount of Series A debentures was purchased for cancellation; the 1979 requirement having been satisfied in prior years, a total of \$1,644,500 has been applied toward the 1980 requirement (including \$773,500 principal amount purchased in 1977).

The Sinking Fund Debentures are secured under a trust deed by a first floating charge upon the property and assets, present and future, of the Corporation.

- (b) Repayment of the Lornex bank loans is secured by general assignments of the Lornex accounts and settlements receivable (\$8.2 million) and by registered assignments under Section 88 of the Bank Act of all Lornex concentrates awaiting shipment and Lornex mine supplies (\$27.0 million).

The interest rate on these loans varies with the base rate for United States dollar loans made in Canada; the December 31, 1978 rate payable by Lornex was 12¾% per annum.

Under the terms of the bank loan agreement Lornex is required to repay, on February 15 and August 15, in each of the years 1979 to 1981 inclusive, a principal amount equal to the lesser of 75% of the available cash flow as defined or U.S. \$7,000,000; any balance of the loans is due August 15, 1981. The 1978 instalments were paid in full and, in addition, prepayments of U.S. \$17,000,000 were made in 1978.

The balance outstanding of U.S. \$25,000,000 is the equivalent of Canadian \$29,500,000 as at December 31, 1978; however, in the normal course of events this debt will be repaid out of U.S. funds derived from future sales of copper and molybdenum concentrates.

- (c) The housing loans and mortgages payable generally carry interest rates varying from 10% to 13¼%.



## 6. CAPITAL STOCK

### Authorized:

445,022 First Preference Shares with a par value of \$100 each,  
issuable in series  
15,000,000 Common Shares without par value

### Issued:

	<u>1978</u>	<u>1977</u>
95,022 \$5.80 Cumulative Redeemable First Preference Shares Series A (103,435 at December 31, 1977) (redeemable at premiums ranging from 2% to 1%) .....	<b>\$ 9,502,200</b>	\$ 10,343,500
13,511,269 Common Shares (13,509,609 at December 31, 1977) .....	<b>99,203,944</b>	99,162,660
	<u><b>\$108,706,144</b></u>	<u><b>\$109,506,160</b></u>

- (i) During the year:
  - (a) 1,660 Common Shares were issued for \$41,284 cash under a Stock Option Plan; and
  - (b) 8,413 First Preference Shares were purchased for cancellation; the Corporation's obligations for the years 1979 to 1982 inclusive referred to in Note 7(c) below have been fulfilled.
- (ii) At December 31, 1978 130,900 Common Shares were reserved under Stock Option Plans. Outstanding options have been granted to employees to purchase 30,900 Common Shares at a price of \$24.87 per share expiring on April 13, 1983.
- (iii) There are restrictions on the payment of dividends in the provisions attaching to the Preference Shares and the Corporation's trust indentures relating to the Series A and Series B Debentures.

## 7. COMMITMENTS AND CONTINGENCIES

- (a) Estimated total cost to complete capital projects as at December 31, 1978 was approximately \$97,252,000 (committed \$22,287,000).
- (b) Minimum annual rentals upon real property with original lease terms extending beyond December 31, 1981 amounted to approximately \$1,114,000.
- (c) The Corporation is obligated on April 1 in each year to set aside \$300,000 as a retirement fund, to be used to purchase or redeem Preference Shares.
- (d) Unfunded liability for pension funds at December 31, 1978 was estimated at \$18,483,000. This is presently being funded over a period of 14 years as follows:
  - (i) \$2,661,000 in 1979,
  - (ii) \$2,046,000 per annum for 1980 and 1981,
  - (iii) \$1,923,000 per annum for 1982 to 1988 inclusive,
  - (iv) \$1,710,000 per annum for 1989 and 1990,
  - (v) \$419,000 in 1991 and,
  - (vi) \$121,000 in 1992.
- (e) In October, 1976, Westinghouse Electric Corporation commenced an action in the United States District Court for the Northern District of Illinois in which 29 defendants were named, including Rio Algom Limited and Rio Algom Corporation (a subsidiary of one of the Corporation's subsidiaries). The complaint filed by Westinghouse alleged illegal combinations and conspiracies among the defendants to restrain both the interstate and foreign commerce of the United States in uranium in violation of the Sherman Antitrust and Wilson Tariff Acts, and sought to recover treble damages and to secure injunctive relief from each of the defendants. On the advice of counsel, Rio Algom Limited did not appear in the action and the resulting default has been noted on the court record. Rio Algom Corporation has filed an appearance in the action and is contesting Westinghouse's complaint. On January 3, 1979 the court entered a final judgment on the issue of liability against Rio Algom Limited and the other defaulting defendants. (Such order did not,



however, contain any determination of the amount of the defendants' liability.) On January 24, 1979 the court issued a preliminary injunction enjoining Rio Algom Limited and other defaulting defendants, from:

- (i) transferring any interest in property located within the United States,
- (ii) withdrawing any United States assets from the jurisdiction of the United States, and
- (iii) taking any other action which would result in divesting the respective defendants of ownership or control of United States assets or in withdrawing such assets from the jurisdiction of the United States.

Excluded from the effect of the injunction are transfers in the ordinary course of business of assets valued at less than \$10,000 and any transfer, 20 days prior notice of which is given to counsel for plaintiff and to the court.

Aside from the foregoing orders, the case is in the discovery stages of pretrial proceedings.

In November, 1977 thirteen companies, including Rio Algom Limited and Rio Algom Corporation, were made defendants in three separate, but similar, actions brought by Tennessee Valley Authority (TVA). In these actions, TVA alleged violations of the United States Sherman Antitrust Act and the Wilson Tariff Act and sought to recover treble damages and to secure injunctive relief from each of the defendants. TVA also sought a declaratory judgment to determine the defendants' liability. On advice of counsel Rio Algom Limited did not appear in this litigation. Rio Algom Corporation has appeared and is contesting TVA's complaint.

TVA is the purchaser under a contract with Rio Algom Limited entered into in August 1974 providing for the delivery, in the form of UF<sub>6</sub>, of the equivalent of 17,000,000 pounds of U<sub>3</sub>O<sub>8</sub> in concentrates over the period 1979 to 1990. During each calendar quarter in 1979 Rio Algom Limited is to make shipments to Eldorado Nuclear Limited at Port Hope, Ontario of an aggregate of 250,000 pounds of U<sub>3</sub>O<sub>8</sub> in concentrates to be converted by Eldorado to UF<sub>6</sub>. The title to such U<sub>3</sub>O<sub>8</sub> in concentrates passes to TVA when the concentrates are placed in storage at Eldorado's plant. In 1980 and subsequent years title passes from Rio Algom Limited to TVA when the UF<sub>6</sub> is delivered by Rio Algom Limited at destinations in the United States. All payments under the contract are to be made in Toronto within 20 days after invoicing by Rio Algom Limited.

On February 26, 1979, TVA commenced an action against Rio Algom Limited in the United States District Court for the Southern District of New York for a declaration vacating the expert's determination of the settlement price under the contract for 1980 deliveries.

TVA and Rio Algom Limited have agreed to a meeting on March 16, 1979 to discuss, among other matters related to the TVA contract, whether the injunction entered in the Westinghouse litigation would affect TVA's ability or intention to make payments under the contract.

- (f) The shares representing the Corporation's investment in an affiliated company have been pledged as security for debt owing by that affiliated company.
- (g) The Corporation has a contingent liability to buy back houses and mobile home lots at Lornex's Logan Lake townsite for \$4,808,639 until December 31, 1982; the cost of the buyback declines by 5% per annum thereafter.

## 8. UNAUDITED QUARTERLY RESULTS

The quarterly revenue, gross profit, net earnings and earnings per share as previously reported in unaudited quarterly reports to shareholders are set forth in the following table (dollars in millions, except per share amounts):

1978	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	YEAR
Revenue .....	\$ 133.0	\$ 148.9	\$ 131.8	\$ 162.4	\$ 576.1
Gross profit .....	39.9	49.7	42.6	58.7	190.9
Net earnings .....	12.8	15.1	14.5	19.4	61.8
Earnings per share .....	0.94	1.10	1.06	1.43	4.53
1977					
Revenue .....	\$ 130.1	\$ 123.6	\$ 111.5	\$ 121.4	\$ 486.6
Gross profit .....	48.5	37.8	33.0	34.4	153.7
Net earnings .....	15.8	9.5	9.0	8.5	42.8
Earnings per share .....	1.16	0.68	0.67	0.61	3.12



## 9. CONVERSION OF FOREIGN CURRENCIES

The Corporation's accounting policy for conversion to Canadian dollars of accounts in foreign currencies is in accordance with the United States Financial Accounting Standards Board Statement No. 8 with the exception of its requirement to translate long term debt at year-end exchange rates.

Long term debt includes bank loans of a subsidiary company, Lornex Mining Corporation Ltd., payable in U.S. dollars, amounting to U.S. \$25,000,000 which have been converted to Canadian dollars at the rate in effect at the time of the borrowing. If the United States policy were followed the Corporation's earnings for 1978 would be increased by \$363,000 during the year; the increase or (decrease) in quarterly earnings would be as follows:

1st — \$(990,000); 2nd — \$574,000; 3rd — \$(1,051,000) and 4th — \$1,830,000.

## 10. REMUNERATION OF DIRECTORS AND SENIOR OFFICERS

The aggregate direct remuneration paid or payable by the Corporation and its consolidated subsidiaries to the Directors and Senior Officers of the Corporation was \$1,114,211 in respect of the year ended December 31, 1978. In addition, amounts, charged to earnings in prior years in respect of discretionary deferred bonus awards, totalling \$101,666 became payable to those individuals during 1978.

11. INTEREST (NET)	1978	1977
Interest on demand bank loans .....	\$ 1,328,516	\$ 646,391
Interest on long term debt .....	13,274,081	13,051,431
Interest capitalized .....	(3,861,000)	(4,292,000)
Investment and other income .....	(8,517,702)	(10,113,806)
	<u>\$ 2,223,895</u>	<u>\$ (707,984)</u>

## 12. DEPRECIATION AND AMORTIZATION

This consists of the following provisions:

	1978	1977
Plant and equipment .....	\$ 27,792,666	\$ 19,847,032
Mining properties and preproduction expenditures .....	3,487,755	4,097,445
Excess of acquisition cost over adjusted book value of Atlas Steels assets acquired .....	1,047,100	1,657,818
	<u>\$ 32,327,521</u>	<u>\$ 25,602,295</u>

## 13. ASSET REPLACEMENT COSTS (UNAUDITED)

Historically, the impact of inflation on the Corporation's production costs has been generally greater than the corresponding change in the general price level. In its steel operations the Corporation has historically not been able to compensate for cost increases by increasing selling prices. In its mining operations selling prices are generally either increased by application of escalation formulae designed to compensate for unit cost increases, or are determined by reference to world commodity prices.

Due to inflation the replacement of plant and equipment with assets having equivalent productive capacity almost always requires a substantially greater capital investment than was required to purchase the assets which are being replaced.

The Corporation's annual report on Form 10-K (a copy of which is available upon request) contains certain specific information with respect to year-end replacement cost of inventories and productive capacity of its operations and the approximate effect which replacement cost would have had on the computation of depreciation expense for the year, as well as the steel operations' cost of sales.



# Auditors' Report to the Shareholders

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We have examined the consolidated statement of financial position of Rio Algom Limited as at December 31, 1978 and the consolidated statements of earnings, retained earnings, contributed surplus and changes in financial position for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as we considered necessary in the circumstances.

In our opinion, these consolidated financial statements present fairly the financial position of the company as at December 31, 1978 and the results of its operations and the changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Toronto, Canada  
March 2, 1979

COOPERS & LYBRAND  
Chartered Accountants



# Supplementary Information

## Five Year Review

### Rio Algom Limited and Subsidiaries

(Thousands of dollars)

	1978	1977	1976	1975	1974
Revenue .....	\$ 576,055	\$ 486,587	\$ 401,611	\$ 367,382	\$ 390,571
Investment and other income .....	8,518	10,114	10,856	4,202	5,548
	<u>584,573</u>	<u>496,701</u>	<u>412,467</u>	<u>371,584</u>	<u>396,119</u>
Cost of mine production and steel sales .....	385,158	332,843	271,624	239,401	227,732
Selling, general and administration .....	45,290	39,397	36,031	31,675	29,173
Interest expense (note 2) .....	10,742	9,406	8,451	8,029	8,904
Depreciation and amortization .....	32,328	25,602	20,652	20,419	20,958
Exploration .....	5,951	6,391	6,827	6,198	5,143
	<u>479,469</u>	<u>413,639</u>	<u>343,585</u>	<u>305,722</u>	<u>291,910</u>
Earnings before taxes and minority interests .....	105,104	83,062	68,882	65,862	104,209
Income and mining taxes .....	38,708	37,695	31,926	35,620	50,619
	<u>66,396</u>	<u>45,367</u>	<u>36,956</u>	<u>30,242</u>	<u>53,590</u>
Minority interests in net earnings of subsidiary .....	4,579	2,552	5,327	210	9,766
Net earnings .....	<u>\$ 61,817</u>	<u>\$ 42,815</u>	<u>\$ 31,629</u>	<u>\$ 30,032</u>	<u>\$ 43,824</u>
PRODUCTION DATA					
Uranium in concentrate (pounds — 000's) .....	6,028	5,468	5,534	5,806	6,194
Copper in concentrate (pounds — 000's) .....	135,422	141,111	145,712	116,811	144,156
Molybdenum in concentrate (pounds — 000's) ....	3,985	3,795	3,769	3,084	4,038
Steel (tons — 000's) .....	208	195	161	161	189
FINANCIAL DATA					
Per share of common stock					
— Net earnings .....	\$ 4.53	\$ 3.12	\$ 2.29	\$ 2.28	\$ 3.52
— Dividends .....	1.29	1.08	1.00	1.00	1.00
— Equity .....	28.29	25.03	22.97	21.66	20.45
Long term debt (000's) .....	\$ 114,676	\$ 121,993	\$ 133,987	\$ 88,468	\$ 63,125
Shareholders' equity (000's) .....	\$ 391,691	\$ 348,534	\$ 321,748	\$ 303,971	\$ 262,796
Common shares outstanding (000's) .....	13,511	13,510	13,507	13,490	12,261
Capital expenditures (000's) .....	\$ 86,329	\$ 95,392	\$ 60,952	\$ 29,504	\$ 14,261
Number of shareholders .....	10,700	11,300	11,800	12,700	13,000
Number of employees .....	6,658	5,922	5,544	5,144	5,362

Notes:

(1) The Poirier copper mine ceased operations June 27, 1975.

(2) The amounts shown above for interest expense for 1978, 1977, 1976 and 1975 do not include interest capitalized in the amounts of \$3,861,000, \$4,292,000, \$2,351,000 and \$930,000, respectively.



## Business Segment Data

The operations of the Corporation and its subsidiaries may be grouped into segments. The primary operations of each segment are as follows:

<u>Business Segment</u>	<u>Operations</u>
Uranium	Underground mining and milling of uranium ore and sale of uranium concentrates.
Copper	Open pit mining and milling of copper and molybdenum ore and sale of concentrates.
Steel	Manufacture and/or distribution of stainless steels, machinery and other steels and other metal products

Revenue from mine production and sales of steel and other products, by segment, are as follows (all are to unaffiliated customers):

	<u>Year Ended December 31,</u>				
	<u>1978</u>	<u>1977</u>	<u>1976</u>	<u>1975</u>	<u>1974</u>
	(In thousands)				
— Uranium .....	\$ 153,074	\$ 132,008	\$ 93,326	\$ 93,416	\$ 68,232
— Copper .....	88,096	75,449	82,940	55,378	96,586
— Steel .....	334,885	279,130	225,345	218,588	225,753
Consolidated .....	<u>\$ 576,055</u>	<u>\$ 486,587</u>	<u>\$ 401,611</u>	<u>\$ 367,382</u>	<u>\$ 390,571</u>
The operating profit of each segment is as follows:					
— Uranium .....	\$ 57,022	\$ 58,107	\$ 37,270	\$ 49,215	\$ 35,547
— Copper .....	30,068	19,281	34,906	13,814	45,900
— Steel .....	32,771	17,733	7,192	19,270	36,431
	<u>119,861</u>	<u>95,121</u>	<u>79,368</u>	<u>82,299</u>	<u>117,878</u>
Deduct:					
Exploration .....	5,951	6,391	6,827	6,198	5,143
Corporate expenses .....	6,582	6,376	6,064	6,412	5,170
Interest (net) .....	2,224	(708)	(2,405)	3,827	3,356
	<u>14,757</u>	<u>12,059</u>	<u>10,486</u>	<u>16,437</u>	<u>13,669</u>
Earnings before taxes and minority interests .....	<u>\$ 105,104</u>	<u>\$ 83,062</u>	<u>\$ 68,882</u>	<u>\$ 65,862</u>	<u>\$ 104,209</u>

Operating profit is revenue less applicable operating expenses. In computing operating profit none of the following items have been deducted: exploration, general corporate expenses, interest expense (net of investment and other income) and minority interests in net earnings of a subsidiary.

During the last five years the following products contributed the percentages of consolidated revenue shown:

	<u>1978</u>	<u>1977</u>	<u>1976</u>	<u>1975</u>	<u>1974</u>
Uranium .....	27%	27%	23%	25%	17%
Copper .....	15	16	21	15	25
Stainless steels .....	27	28	26	27	30
Machinery steels .....	12	11	8	12	10
Other products .....	19	18	22	21	18
	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>



Identifiable assets of each segment are as follows:

	December 31				
	1978	1977	1976	1975	1974
	(In thousands)				
Uranium .....	\$ 242,902	\$171,295	\$116,572	\$115,644	\$ 98,770
Copper .....	179,209	188,504	189,875	172,817	173,645
Steel .....	235,225	212,630	200,147	180,392	178,931
Segment identifiable assets .....	657,336	572,429	506,594	468,853	451,346
General corporate assets .....	98,891	110,216	123,525	72,262	20,965
Total assets .....	\$ 756,227	\$682,645	\$630,119	\$541,115	\$472,311

Segment identifiable assets are those assets that are used in the operations of each segment. General corporate assets are principally cash and short term deposits and investment in and advances to an affiliated company.

Depreciation, depletion and amortization expense of each segment is as follows:

	Year Ended December 31,	
	1978	1977
	(In thousands)	
Uranium .....	\$ 13,927	\$ 7,505
Copper .....	9,001	8,816
Steel .....	9,307	9,190
Segment depreciation, depletion and amortization expense .....	32,235	25,511
General corporate depreciation .....	93	91
Total depreciation, depletion and amortization expense .....	\$ 32,328	\$ 25,602

Net capital expenditures of each segment including capitalized interest are as follows:

	Year Ended December 31,	
	1978	1977
	(In thousands)	
Uranium .....	\$ 77,283	\$ 71,483
Copper .....	4,427	18,584
Steel .....	4,571	5,213
Segment capital expenditures .....	86,281	95,280
General corporate capital expenditures .....	48	112
Total capital expenditures (net) .....	\$ 86,329	\$ 95,392

The Corporation's foreign operations are conducted by subsidiaries in four countries; domestic divisions make export sales in various parts of the world. Details of foreign and domestic revenue are as follows:

	Year Ended December 31,	
	1978	1977
	(In thousands)	
Domestic operations (Canada) (A) .....	\$489,326	\$417,898
Foreign operations — United States of America, Australia, United Kingdom and Mexico .....	86,729	68,689
Consolidated revenue .....	\$576,055	\$486,587



A (i) Includes export revenue from sales to unaffiliated customers of approximately \$231,830,000 and \$185,874,000 in 1978 and 1977, respectively, as follows:

	1978	1977
	(In thousands)	
Japan .....	\$ 91,708	\$ 80,545
United States .....	47,016	28,204
United Kingdom .....	57,849	61,149
Other countries .....	35,257	15,976
	<u>\$231,830</u>	<u>\$ 185,874</u>

(ii) Does not include revenue from inter-company sales to foreign operations of \$19,292,000 in 1978 and \$14,926,000 in 1977.

Operating profit by domestic and foreign operations is as follows:

	Year Ended December 31,	
	1978	1977
	(In thousands)	
Domestic (Canada) .....	\$105,690	\$ 85,385
Foreign .....	14,171	9,736
Operating profit of segments .....	<u>\$119,861</u>	<u>\$ 95,121</u>

Identifiable assets of the Corporation's foreign operations totalled \$60,971,000 and \$52,569,000 at December 31, 1978 and 1977, respectively.

## Price Range of Common Shares and Dividends Paid

The following table shows the high and low prices for Rio Algom Common Shares on The Toronto Stock Exchange and dividends paid on these shares by the Corporation during 1978 and 1977.

	1978	1977	Dividends paid per share
First Quarter .....	\$28 1/8 – 24 6/8	\$28 6/8 – 25 4/8	1978 June 29 – 54¢
Second Quarter .....	33 2/8 – 28 1/8	29 6/8 – 27	November 29 – 75¢
Third Quarter .....	39 2/8 – 31 5/8	29 2/8 – 22 5/8	1977 June 29 – 54¢
Fourth Quarter .....	38 4/8 – 32 4/8	27 3/8 – 22 5/8	December 29 – 54¢



In 1975 earnings before taxes and minority interests declined by \$38,347,000. At the operating profit level there was a decrease of \$35,579,000; copper operating profit was lower by \$32,086,000 and steel profits declined by \$17,161,000, partly offset by an increase of \$13,668,000 in uranium profits. Copper earnings declined because of lower copper prices and a reduction in operating level at Lornex resulting from the depressed world-wide demand for copper; in addition the Poirier mine ceased operations June 27, 1975. In the steel operations the deterioration in market conditions which had begun to manifest itself in the latter part of 1974 continued and accelerated in 1975. The increase in uranium profits was attributable in part to two spot sales of uranium oxide of one million pounds each entered into during 1975 at then prevailing market prices. The net decline in pre-tax earnings was offset somewhat by reductions of \$14,999,000 and \$9,556,000 in the provisions for income and mining taxes and the minority shareholders' interests in the net earnings of Lornex, respectively.

In 1976 earnings before taxes and minority interests increased by \$3,020,000. Operating profits declined by \$2,931,000, consisting of decreases of approximately \$12,000,000 each in steel and uranium offset by a \$21,000,000 increase in copper. The increase in copper profits was due to an increase in copper production and slightly higher average copper prices at Lornex which was 66.5% owned by Rio Algom. Uranium profits were significantly lower since price escalation formulae in long term contracts and renegotiation of some contract prices were not sufficient to offset somewhat lower grades and substantially higher mine operating costs. In addition, 1975 earnings had benefitted from two spot sales of uranium oxide at then prevailing market prices. In the steel operations there was a substantial deterioration in earnings caused by depressed market conditions, a weaker product mix, reduced profit margins due to competitive pressures, a nine week strike at the Atlas Steels' Tracy plant and higher operating expenses; steel earnings were also affected adversely by deterioration in the values of currencies in Mexico, Australia and the United Kingdom. Investment and other income was higher in 1976 because of a greatly improved cash position, higher interest rates earned on funds invested in 1976 and the inclusion of the \$1.5 million gain realized on the sale of the plant and equipment of the Mines de Poirier copper mine during the second quarter of 1976. Income and mining tax provisions were \$3,694,000 lower in 1976 mainly because of lower earnings in the steel and uranium mining operations. Minority interests in net earnings of a subsidiary increased by \$5,117,000 in 1976 due to the improved net earnings of Lornex.

Earnings before taxes and minority interests were \$14,180,000 higher in 1977. Operating profits were \$15,753,000 higher in 1977, comprised of increases of \$20,837,000 in uranium and \$10,541,000 in steel offset by a decrease of \$15,625,000 in copper profits. Uranium earnings increased primarily because of renegotiation of export contract prices; a significant portion of the increase related to 1976 production. Steel profits were higher at the Tracy plant of Atlas Steels and in the metal service centres of Atlas Alloys. There were marked improvements in operating efficiencies in 1977 at the Tracy plant where the 1976 results had been depressed by a nine week strike and weak markets; the metal service centres recorded higher sales volumes and modest increases in margins in 1977. Copper profits were lower than in 1976 primarily because of lower copper prices; expenses were higher as a result of escalation in operating costs and increased waste removal in the open pit mining operation. Income and mining tax provisions were \$5,769,000 higher in 1977 because of higher profits in uranium and steel. Minority interests in net earnings of a subsidiary declined by \$2,775,000 in 1977 due to lower copper earnings at Lornex, 67.2% of which was owned by Rio Algom.

Earnings before taxes and minority interests increased by \$22,042,000 in 1978. Operating profits increased by \$24,740,000, comprised of increases of \$15,038,000 in steel and \$10,787,000 in copper and a decrease of \$1,085,000 in uranium profits. Steel profits were higher at both the Welland and Tracy plants of Atlas Steels and in the metal service centres of Atlas Alloys. Welland plant earnings were adversely affected in 1977 and the earlier part of 1978 by delays in attaining production and cost objectives for the new melt shop; these were achieved in the latter part of 1978. Significant improvements in yields and general operating efficiency were accomplished at the Tracy plant. The Atlas Alloys service centres were able to maintain operating margins and achieve significant increases in sales and earnings despite continuing strong competition. Copper profits were higher than in 1977 due mainly to higher copper and molybdenum prices; most of the increase in copper prices was a result of the decline in value of the Canadian dollar in relation to the U.S. dollar. Uranium profits declined slightly in spite of increased production; the 1977 uranium earnings had been favorably affected by price renegotiations applicable in part to 1976. Also, operating costs increased in 1978, including the higher depreciation and amortization charges relating to the expanded Quirke operation which came on stream in April, 1978. Income and mining taxes increased by only \$1,013,000 in spite of the \$22 million increase in pre-tax earnings. The decrease in the effective tax rate is mainly attributable to reduced mining taxes on lower uranium taxable earnings and increased investment tax credits associated with major capital expenditures for expansion of uranium operations. Minority interests in net earnings of a subsidiary were \$2,027,000 higher in 1978 due to increased copper earnings at Lornex, 68.1% of which is owned by Rio Algom.



# Rio Algom Operations

## Canada

### MINING

Head Office — Toronto, Ontario

Uranium Operations —

Quirke mine at Elliot Lake, Ontario

Copper Operations —

Lornex Mining Corporation Ltd., Vancouver, B.C.

Lornex mine at Logan Lake, B.C.

### EXPLORATION

Rio Tinto Canadian Exploration Limited (Riocanex)

Head Office — Toronto, Ontario

Eastern Canada Office — Toronto, Ontario

Western Canada Office — Vancouver, B.C.

Branch and Field Offices at Fredericton,

Quebec City and Thunder Bay

### STEEL

Atlas Steels

Head Office — Welland, Ontario

Plants at Welland, Ontario and Tracy, Quebec

### METAL DISTRIBUTION

Atlas Alloys

Head Office — Etobicoke, Ontario

Service Centres at Etobicoke, Montreal, Windsor,

Sarnia, Sudbury, Thunder Bay, Winnipeg,

Edmonton, Calgary, Vancouver and Prince

George

## United States

### MINING

Rio Algom Corporation

Registered Office — Wilmington, Delaware

Uranium Operations —

Lisbon mine at Moab, Utah

### EXPLORATION

Rioamex, Division of Rio Algom Corporation,

Lakewood, Colorado and Spokane, Washington

### METAL DISTRIBUTION

Atlas Alloys Inc.

Head Office — Cleveland, Ohio

Service Centres at Valley View, Ohio, Detroit,

Michigan, K. C. Glader Co., Chicago, Illinois and

Atlas Mill Sales, Orchard Park, N.Y.

## Overseas

### METAL DISTRIBUTION

Atlas Alloys Limited, Dunstable, Beds., England

Atlas Steels (Australia) Pty. Limited, Melbourne,  
Australia

Aceromex-Atlas S.A., Mexico City, Mexico

Agents or Distributors in other countries

# Miscellaneous Corporate Information

## Head Office

120 Adelaide Street West, Toronto, Ontario, Canada  
M5H 1W5

## Auditors

Coopers & Lybrand, Chartered Accountants, Toronto

## Registrars and Transfer Agents

Common Shares

Canada Permanent Trust Company,

Toronto, Montreal, Winnipeg, Regina, Calgary and  
Vancouver

The Canadian Bank of Commerce Trust Company,  
New York

Preference Shares

Canada Permanent Trust Company,

Toronto, Montreal, Halifax, Winnipeg and  
Vancouver

## Shares Listed

Common Shares

Toronto Stock Exchange, Toronto

Montreal Stock Exchange, Montreal

American Stock Exchange, New York

Preference Shares

Toronto Stock Exchange, Toronto

Montreal Stock Exchange, Montreal

## Form 10-K Annual Report

The Corporation's Form 10-K annual report for 1978 to the United States Securities and Exchange Commission will be available to shareholders on written request to the Secretary of the Corporation.



# Rio Algom Limited

120 Adelaide Street West,  
Toronto, Canada M5H 1W5

## Directors

- \*G. R. Albino  
*President and Chief Operating Officer of the Corporation, Toronto*
- \*R. D. Armstrong  
*Chairman and Chief Executive Officer of the Corporation, Toronto*
- †J. Ian Crookston  
*Financial Consultant, Toronto*
- P. H. Dean (2)  
*An Executive Director, The Rio Tinto-Zinc Corporation Limited (1), London, England*
- †J. G. Edison, QC  
*Counsel to Aird & Berlis, Barristers & Solicitors, Toronto*
- \*†G. C. Gray  
*Chairman and Chief Executive Officer, A. E. LePage Limited, Realtors, Toronto*
- \*Sam Harris  
*Senior Partner, Fried, Frank, Harris, Shriver & Jacobson, Attorneys-at-Law, New York, U.S.A.*
- D. S. R. Leighton  
*Director, The Banff Centre, Banff, Alberta*
- W. Moodie  
*President, Canadian Pacific Investments Limited, an investment company, Montreal*
- \*J. Herbert Smith  
*Consulting Engineer, Toronto*
- \*Sir Mark Turner  
*Chairman, The Rio Tinto-Zinc Corporation Limited (1), London, England*
- \*R. J. Turner  
*President and Chief Executive Officer, Genstar Limited, a diversified Canadian company, Montreal*
- R. W. Wright, CBE  
*Director, The Rio Tinto-Zinc Corporation Limited (1), London, England*
- \*Members of the Executive Committee
- †Members of the Audit Committee
- (1) The parent of an international group of mining and industrial companies
- (2) Not standing for re-election

## Officers

### EXECUTIVE

- R. D. Armstrong  
*Chairman and Chief Executive Officer*
- G. R. Albino  
*President and Chief Operating Officer*

### CORPORATE

- R. G. Connochie  
*Vice-President, Planning*
- J. G. Littlejohn  
*General Counsel*
- A. F. Lowell  
*Vice-President, Minerals Marketing*
- H. A. Pakrul  
*Vice-President, Controller*
- A. C. Turner  
*Vice-President, Secretary*
- J. Van Netten  
*Vice-President, Treasurer*

### MINING

- E. W. Cheeseman  
*Vice-President, Underground Mining Operations*
- P. A. Carlross  
*Vice-President, General Manager, Elliot Lake*
- P.M. Kavanagh  
*Vice-President, Exploration*
- J. E. Moyle  
*Vice-President, Mining Engineering*

### ATLAS STEELS

- A. V. Orr  
*Vice-President, General Manager*
- H. L. Brien  
*Vice-President, Engineering*
- C. E. Ohlson  
*Vice-President, Sales and Marketing*
- D. V. Roland  
*Vice-President, Export Sales*
- G. L. Sandler  
*Vice-President, Finance*

### ATLAS ALLOYS

- W. D. Dobbin  
*Vice-President, General Manager*
- K. Collyer  
*Vice-President, Canadian Operations*
- J. B. Dunn  
*Vice-President, Controller*
- W. I. Pollock  
*Vice-President, Marketing*







**Rio Algom Limited**

*Interim  
report*

*done July 28/78*

SIX MONTHS ENDED JUNE 30

**1978**



## TO THE SHAREHOLDERS:

Consolidated net earnings for the first six months of 1978 were \$27,918,000 compared to \$25,244,000 for the same period in 1977. The comparative net earnings per common share were \$2.04 and \$1.84 respectively; the earnings per common share are calculated after providing for dividends on first preference shares and are based on the average number of common shares outstanding during the respective periods.

The increase in consolidated net earnings was due mainly to a lower effective rate of taxation; earnings before taxes were \$3.4 million lower this year than in the equivalent period of 1977 but provisions for income and mining taxes declined by \$5.3 million. The lower rate of taxation resulted from a decrease in uranium mining earnings and an increased processing allowance for Ontario mining tax purposes, resulting from major capital expenditures at Elliot Lake.

The decline in pre-tax earnings was due primarily to lower earnings from the Company's uranium and copper mining operations, partly offset by higher steel earnings. Uranium earnings for both years were favourably impacted by contract price renegotiations but the resulting increase was much more substantial in 1977, where a significant portion of the increase related to 1976 production. On a normalized basis uranium earnings would be higher in the first half of this year than in the comparable period of 1977. Uranium production was 9% higher this year.

Revenue and earnings at the Company's Lornex copper-molybdenum mine, located in British Columbia and 68.1% owned by Rio Algom, were lower in the first half of 1978 than in the similar period of 1977 due to reduced copper production and higher smelting and refining charges. Copper revenue per pound was slightly higher this year because of foreign exchange gains. Copper production was down about 6% from last year's first half due to lower mill head grades; last year's grades were unusually high. Tonnage milled was slightly higher this year.

Revenue and earnings were higher in the Company's steel operations due to increased sales in almost all areas and to improved productivity at both the Tracy and Welland plants of Atlas Steels. Increases in sales revenue have been especially significant for the Welland plant and for the Canadian service centres of Atlas Alloys.

The major construction programs at Elliot Lake continue to proceed satisfactorily; these programs accounted for almost 90% of the Company's capital expenditures in the first half of 1978. The program to expand the capacity of the Quirke mill from 4,500 tons per day is virtually complete, ahead of schedule and below budget. This mill averaged 6,310 tons per day for the three months ended June 30, 1978; accordingly the project has been deemed to be operational as of April 1, 1978. However, it will be a few more months before the mine can supply sufficient ore for the mill to run continuously at its expanded capacity of 7,000 tons per day. The development of the Panel mine and mill is also proceeding well and within budget; however, environmental requirements are not yet firmly established.

Consolidated net earnings for the second quarter of 1978 are \$5.6 million higher than in the same period last year. Uranium earnings were increased this year because of contract price renegotiations since the second quarter of 1977 and because of increased production resulting from higher tonnage milled at Elliot Lake. As mentioned above, the Quirke mill expansion was operational during the second quarter of 1978. This was the main reason for the higher tonnage and for the increased depreciation and amortization charges during the second quarter of 1978. Steel earnings were also higher because of increased sales in almost all areas. Earnings at Lornex also improved over the second quarter of last year. The effective rate of taxation was lower in the second quarter of 1978 because of higher processing allowances for Ontario mining tax purposes.

R. D. ARMSTRONG

*Chairman and  
Chief Executive Officer*

G. R. ALBINO

*President and  
Chief Operating Officer*

*Toronto, Canada  
July 27, 1978*



# RIO ALGOM LIMITED

## CONSOLIDATED STATEMENT OF EARNINGS

(\$000's omitted)

	Three Months Ended June 30		Six Months Ended June 30	
	1978	1977	1978	1977
<b>Revenue:</b>				
Revenue from mine production and sales of steel and other products	\$ 148,913	\$ 123,634	\$ 281,899	\$ 253,716
<b>Expenses:</b>				
Cost of mine production and steel sales	99,219	85,830	192,306	167,366
Selling, general and administration	12,100	9,774	22,791	19,538
Interest (net) (note)	666	(461)	162	(22)
Depreciation and amortization	8,929	6,162	15,792	12,339
Exploration	1,696	1,895	2,588	2,857
	<u>122,610</u>	<u>103,200</u>	<u>233,639</u>	<u>202,078</u>
Earnings before taxes and minority interest	26,303	20,434	48,260	51,638
Income and mining taxes	10,481	10,391	18,911	24,250
Earnings before adjustment for minority interests in subsidiary company	15,822	10,043	29,349	27,388
Minority interests in net earnings of subsidiary	703	569	1,430	2,144
Net earnings for the period	<u>\$ 15,119</u>	<u>\$ 9,474</u>	<u>\$ 27,919</u>	<u>\$ 25,244</u>
Earnings per common share	<u>\$ 1.10</u>	<u>\$ 0.68</u>	<u>\$ 2.04</u>	<u>\$ 1.84</u>
<b>Note:</b>				
Interest (net) consists of:				
Interest on demand bank loans	\$ 337	\$ 151	\$ 525	\$ 296
Interest on long term debt	3,338	3,251	6,558	6,530
Interest capitalized	(799)	(795)	(2,611)	(1,353)
Investment and other income	(2,210)	(3,068)	(4,310)	(5,495)
	<u>\$ 666</u>	<u>\$ (461)</u>	<u>\$ 162</u>	<u>\$ (22)</u>

Approved on behalf of the Board:  
R. D. Armstrong, Director  
G. R. Albino, Director

Subject to year end audit and adjustments.



# AR10

## CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION

For the six months ended June 30, 1978  
(\$000's omitted)

	1978	1977
<b>Source of Funds:</b>		
Earnings before adjustment for minority interests in subsidiary company	\$ 29,349	\$ 27,388
Add items included in earnings not involving current outlay of funds:		
Depreciation, amortization and other charges (net)	15,845	12,378
Deferred income and mining taxes	15,632	16,675
Funds provided by operations	60,826	56,441
Housing and other mortgages (net)	4,434	1,597
Issue of common shares under stock option plan	16	75
	<u>65,276</u>	<u>58,113</u>
<b>Disposition of Funds:</b>		
Expenditures (net) for plant and equipment, mining properties and preproduction	37,493	36,272
Dividends on common shares	7,296	7,294
Dividends on preference shares	296	330
Purchase of minority shareholders' interests in subsidiary company	808	302
Purchase of preference shares for cancellation	141	838
Advances to affiliated company	2,274	—
Reduction of long term debt:		
Rio Algom Limited debentures	499	2,416
Bank loans of subsidiary	6,818	6,818
	<u>55,625</u>	<u>54,270</u>
<b>Increase in Working Capital</b>	<b>9,651</b>	<b>3,843</b>
Working Capital, beginning of period	227,859	261,302
<b>Working Capital, end of period</b>	<b>\$ 237,510</b>	<b>\$ 265,145</b>